

CLAIMS

1. A fuel cell system for a portable electronic device, comprising:  
a fuel cell capable of operating on hydrogen that is obtained from methanol;  
5 and  
a reservoir for storing a supply of methanol, suitably connected to the fuel cell,  
wherein a fuel quantity measuring means is located within the reservoir, wherein the  
fuel quantity measuring means comprises:  
an immersion capacitive, wherein the supply of methanol in the  
10 reservoir forms a dielectric between the plates of the immersion capacitive  
unit, and  
electrical circuitry for measuring a capacitance value of the immersion  
capacitive unit produced using the dielectric.

2. A fuel cell system for a portable electronic device, comprising:  
a fuel cell that operates on hydrogen obtained from a liquid hydrocarbon fuel;  
and

5 a reservoir for containing a supply of the liquid hydrocarbon fuel, said reservoir  
connected to the fuel cell, wherein a sensing means for measuring the amount of liquid  
hydrocarbon fuel that is present is located within the reservoir, wherein the sensing  
means comprises:

10 an immersion capacitive unit, wherein the supply of methanol in the  
reservoir forms a dielectric between the plates of the immersion capacitive  
unit, and

electrical circuitry for measuring a capacitance value of the immersion  
capacitive unit produced using the dielectric.